

II. Remarks

In the above referenced Action, the Examiner objected to the drawings under 37 C.F.R. 1.83(a) for failure to show every feature of the invention as specified in Claim 42. The Examiner specifically objected to the words “flangeless rim flange” as set forth in Claim 42 as not being shown in the drawings.

In response to this objection, Applicants’ attorney wishes to bring to the attention of the Examiner, that this application as stated in paragraph one, was a continuation-in-part of abandoned Application Serial No. 09/304,734 filed on May 4, 1999 which in turn was a non-provisional application of an originally filed provisional application Serial No. 60/084,378 filed on May 6, 1998. In this provisional application, five figures were submitted and were clearly described beginning on page 6 thereof. Note that at line 12 of page 6, the embodiment of Figure 1 is described as a wheel without a rim flange, such configuration not complying with the standard tire and rim association nomenclature as shown in Figure 5. Beginning at line 15, a further embodiment as shown in Figure 2 is described as a flangeless look with a minimum functional flange height which does not accept balance weight clips about the periphery of the wheel. Typically, the wheel weights are taped to the radially inward surface of this type of wheel. Again, it is important to note that such configuration would not comply with the standard Tire and Rim Association nomenclature as shown in Figure 5. In any event, Figure 1 of the provisional patent application is identical to Figure 7 of the current application and accordingly, the feature of a flangeless rim flange as set forth in Claim 42 is indeed shown in the drawings. It is therefore respectfully requested that the drawing objection under 37 C.F.R. §1.83(a), be withdrawn.

In paragraph three of the Office Action, the Examiner objected to the specification under 35 U.S.C. §132(a) because it introduces new matter in the disclosure. The specific new matter pointed out by the Examiner concerns the use of the word “machined” as set forth at least on pages 10, 11, 16, 17, 18, 24 and 26. Further, the Examiner considers the use of the rim flange being machined to a “minimum functional flange height” added to at least pages 10 and 16 to be new matter while the “flangeless rim” or “flangeless wheel” as added to at least pages 11, 12, 17 and 26 are also considered to be new matter.

In support of the addition of the “machined” language on pages 10, 11, 16, 17, 18, 24 and 26 the Applicants wish to direct the Examiner’s attention to page 21, lines 8-10 of non-provisional application, as well as page 7, lines 10-12 of the provisional application and Drawing Figure 4 of the provisional patent application which clearly sets forth the basis for support of a machined rim flange on the wheel. The rim flange having a minimal functional height is stated in the provisional application at page 6, lines 15-20 while the words “flangeless rim” or “flangeless wheel” are supported by the language set forth in the provisional application at page 5, lines 8-9, as well as page 6, lines 15-16. Accordingly, such matter added to the specification does indeed have appropriate antecedent basis in either the application currently pending or the provisional application which was filed to which this application claims priority. It is therefore respectfully requested that the objection to the specification in paragraph three of the Office Action for the reason of introducing new matter be withdrawn since the language as outlined by the Examiner does find clear support in the pending application, as well as the provisional application originally filed.

In paragraph four of the subject Office Action, the Examiner objected to the disclosure because the last sentence in paragraph fourteen he considers not to be logical to presume that the covers of the patent in question can extend radially beyond the peripheral edge of the rim. The Examiner further states that this statement is not supported in any of the references Applicants have mentioned in the discussion of the prior art, and is actually nothing more than conjecture and the Applicants' own opinion. Therefore, the Examiner insists that this disclosure must be deleted.

Frankly, this statement is not understood especially in view of paragraphs 15 and 17 of the Background and History of the application. In paragraph 15, Applicants clearly set forth prior art namely, Heck et al., U.S. Patent No. 5,595,423, as well as Eikhoff, U.S. Patent No. 5,829,843 which discloses wheel covers that are wrapped around the outer lip of the wheel and tucked into a groove on the backside of the wheel. Accordingly, the statements at paragraph 17 which refer to this group of prior art references clearly applies. In other words, tire servicing, radial road deflections during operation and "run flat conditions" are all situations in which permanent damage to the overlay or tire will occur. During tire installations and removal, service equipment that locates on the extreme periphery of a standard rim flange of a wheel will damage the prior art wheel covers that wrap around the flange lip of the rim flange. This clearly occurs when the outer most diameter of the wheel cover is greater than that of the outer most diameter of the wheel. Accordingly, it is not understood how the Examiner can consider this conjecture or Applicants' own opinion since a person skilled in the art recognizes this as a problem with a wheel that uses a cover that is wrapped around the outer edge or radially lip of the wheel. Also, special racking systems and material handling equipment must be made in order to process this

type of wheel in production in that, if the wheels are allowed to collide with each other on a gravity feed conveyor, they will cause damage to the bright surface at the outside diameter of the cover and are generally rejected for such damage. Accordingly, Applicants have set forth the conditions that exist in the real world as is well known to a person skilled in the art. I wish to remind the Examiner that this application was read by the inventors, persons skilled in the art, appropriately declared that the statements made are believed to be true. Accordingly, Applicants will not delete this sentence from the disclosure as requested by the Examiner. It is therefore respectfully requested that the objection be withdrawn or alternatively, Applicants wishes to offer an affidavit although the declaration originally signed with the application should be sufficient.

In paragraph five of the Office Action, the Examiner objected to the use of the term "flangeless" in the description of certain embodiments of the disclosed wheel and considers such to be confusing and incorrect. The Examiner states that the tire could not be retained on the rim without a flange. Accordingly, he requests appropriate correction.

Frankly, this statement made by the Examiner that the tire could not be retained on the rim without a flange is incorrect when viewing the Tire and Rim Association standard contour symbols of nomenclature as published by the Society of Automotive Engineers (SAE) and as set forth in Figure 5 of the provisional application, a copy of which is enclosed herewith. Please note that in this Society of Automotive Engineer standard that is to be complied with by every wheel manufacturer, the radius R_3 is defined as the bead seat radius. Further, the radius R_2 is considered to be the flange radius. Note that the reference characters cited by the Examiner as to denote rim flanges, i.e., 137, 337, and 437 are actually within the bead seat radius of the wheel. Note that there is no flange height as defined in the standard, that is, G being the flange height,

none of these wheels have a flange height since all of their so stated rim flanges 137, 337, 437, etc. are well within the bead seat radius. Accordingly, the Examiner's statement that a tire could not be retained on a rim without a flange is incorrect in that in order for a tire to be retained on a flange, the bead seat must be present so as to seat the tire for use on the wheel. No flange is actually necessary according to the standard nomenclature designated by the tire and rim association standard as used by all OEM manufacturers. Accordingly, even though the Applicant has used the words rim flange in the specification to designate these reference characters 137, 337, 437, etc., all such references are well within the bead seat radius and therefore, these are indeed flangeless wheels since the flange height G is nonexistent.

When considering the definitions as set forth in the SAE automotive standard of Figure 5, I believe that the nomenclature used is indeed correct since the flanges have been modified to be eliminated in Figures 7-10. Therefore, it is respectfully requested that the objection to this portion of the specification be withdrawn.

In paragraph six of the official Action, the specification was objected to as failing to provide proper antecedent basis for the claimed subject matter. The Examiner considers the fact that the specification does not describe how tire changing equipment "cannot damage" the surface of the overlay or how "any form of material handling of said wheel during production and/or transportation of said assembly will prevent said cladding from becoming damaged by adjacent assemblies contacting each other" as set forth in Claims 29, 42 and 53 to be objectionable.

In paragraphs 15-17, Applicant has set forth two prior art cladding assemblies which have experienced damage to the outboard surface of the rim flange as the flange is

wrapped around the outer lip of the wheel. Clearly, when such wheel is put on tire changing equipment, a person skilled in the art knows that the equipment uses clamps on the OD of the cladding assembly in order to remove the tire. Accordingly, such fact is well known and therefore, it is important to fabricate the cladding in such a way that it is maintained a predetermined distance from the edge of the wheel to avoid damage during tire changes. This fact is also recognized in Beam, U.S. Patent No. 5,368,370, column 3, lines 39-56. Accordingly, the statements set forth in Claims 29, 42 and 53 are indeed based on problems associated with the prior art and the invention solves these problems. Further, it is well known to a person skilled in the art when the cladding is wrapped around the outer lip of the wheel, special material handling equipment must be used to prevent the wheels from bumping into each other as they would on a gravity feed conveyor. Again, by maintaining a cladding wheel assembly that fabricates the cover to be smaller in outside diameter within a predetermined margin of the outer diameter of the wheel avoids any damage to the chrome plated surface of the cover and if they are allowed to travel on a gravity feed conveyor, the flange lip of the wheel will be contacting each other upon bumping into each other and the terminal end of the cladding having been chrome plated cannot be damaged. Accordingly, it is amply clear to a person skilled in the art as set forth by Beam, as well as the current inventors, that these small considerations made in the combination of the cladding wheel assembly solve very difficult and severe problems associated with the production of a cladding assembly. It is for this reason that the functional clause within Claims 29, 42 and 53 do indeed properly describe that the cladding cannot be damaged due to its structural relationship relative to the outside diameter of the wheel. Again the Background and History paragraphs 15-17, as well as a person skilled in the art is well aware of these problems.

Accordingly, these claims were not amended since they do clearly set forth with specificity the functional relationship of the structural embodiment claimed and appropriate antecedent basis in the specification when read as a whole is clearly evident for this language.

In paragraph 7 of the Office Action, the Examiner objected to the use of the word “webb” in Claims 29, 42 and 53. Appropriate correction has been made. Accordingly, it is respectfully requested that this objection to Claims 29, 42 and 53 be withdrawn.

In paragraphs 8 and 9, the Examiner rejected Claims 41, 52, 65 and 66 under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. The Examiner considers the claim to contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains or with which it is most nearly connected, to make and/or use the invention. It is the Examiner’s contention that the specification does not give any examples of the “industry standard” dimensions of the rim flange or for the balance weights as set forth in Claims 41, 52, 65 and 66. The Examiner considers it not to be clear what is encompassed by the “industry standard” rim flanges and the “industry standard” balance weights.

As earlier set forth, the provisional specification did indeed describe the Tire and Rim Association standard contour symbols and nomenclatures as published by the Society of Automotive Engineers and was filed with the provisional application as Figure 5. Accordingly, a copy thereof is enclosed herewith and the undersigned wishes to request the Examiner’s guidance as to how to reflect this nomenclature in this specification. This standard is identified by the Society of Automotive Engineers (SAE) and can be incorporated as a known standard with a

specific reference or a drawing could be offered with this standard as shown in the Figure 5 as earlier filed.

All persons skilled in the art of wheel and cladding manufacturers are also well aware of the balance weight and rim flange design specification test procedures and performance recommendations set forth by the Society of Automotive Engineering in SAE J1986, February 1993, a copy of which is enclosed herewith. At page 6 thereof, are illustrated the various balance weights that are considered standard in the automotive industry. Persons skilled in the art are well aware of these standards and it is necessary to comply with these standards in order to commercialize a wheel for use on a vehicle. These standards are clearly depicted on each production drawing of vehicles and accordingly, they are indeed well known industry standards. Again, it is respectfully requested that the Examiner propose how to refer to such well known standard by way of illustrations or just a standard number as adapted by the Society of Automotive Engineers.

In the above referenced Action, paragraphs 10 and 11 set forth rejections to Claims 29-66 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. The Examiner contends that in each of Claims 29, 42, and 53, the phrase "any form of material handling of said wheel during production and/or transportation of said assembly will prevent said cladding from becoming damaged by adjacent assemblies contacting each other" is not understood. The Examiner further concludes that it appears that the Applicants are claiming that the overlay cannot ever be damaged by any equipment during production or transportation.

Since such equipment is not described in detail, and is not shown in the drawings, it is not seen how this limitation is possible.

This rejection is similar to the rejection in paragraph 6 which has been responded to above. However, to reiterate, it is clear that it is well known to a person skilled in the art that tire mounting or demounting machinery can easily damage claddings by replacing the tire if the cladding is of the type wherein the terminal end of the cladding wraps around the edge of the wheel. This is recognized and clearly set forth in the background and history of this application, as well as in Beam, at lines 39-56, column 3 of U.S. Patent No. 5,368,370. Further, for such cladded assemblies, it is also important to understand that during production, in the use of material handling equipment that these *claddings not be allowed to slide and bump into each other since this will definitely damage and will certainly result in damage to the radially outermost edge of the outboard* surface of the cladding and perhaps be sufficiently damaged to create rejects in the production process.

This prior art problem is solved in this application by providing a cladded wheel assembly wherein the outside diameter of the cladding is designed to at all times be smaller in diameter than the outside diameter of the periphery of the wheel. Accordingly, if material handling equipment results in assemblies touching each other, it is only the steel wheel that may possibly be damaged since the cladding is maintained at a predetermined margin from the edge of the wheel there can be no damage to the cladding as a result of adjacent wheels touching each other during fabrication thereof. Further, with the cladding maintained a predetermined margin of the edge of the wheel, tire changing equipment cannot damage the cladding during a tire change since the predetermined margin as clearly set forth is determined to be sufficient to keep

the cladding outside diameter away from the equipment that is used to change a tire on tire mounting or demounting machinery. Accordingly, the ornamental surface treatment is at all times maintained in its original bright form without evidence of scratches or chipping of the chrome plated ornamental surface which can occur and will occur when the cladding is wrapped around the outer lip of the wheel. For these reasons and the reasons set forth to the response to paragraph 6, it is respectfully requested that the 35 U.S.C. §112, second paragraph rejection be withdrawn in that Applicants' invention does indeed particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

In the above referenced Action, the Examiner rejected Claims 29, 32, 33, 41, 53, 56, 57, 65 and 66 under 35 U.S.C. §102(b) as being anticipated by the disclosure of Beam, U.S. Patent No. 5,368,370. The undersigned attorney respectfully traverses the Examiner's rejection of independent Claims 29 and 53, as well as dependent Claims 32, 33, 41, 56, 57, 65 and 66 in view of the amended claims presented herein and submitted herewith, as well as the following argument.

The test for determining if a reference anticipates a claim, for purposes of a rejection under 35 U.S.C. §102 is whether the reference discloses all the elements of the claimed combination, or the mechanical equivalents, functioning in substantially the same way to produce substantially the same results. As most recently noted by the Court of Appeals of the Federal Circuit in *Lindemann Maschinenfabrick GmbH v. American Hoist and Derrick*, 221 USPQ 481, 485 (1984), in evaluating the sufficiency of an anticipation rejection under 35 U.S.C. §102, the Court stated:

“Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim.”

Applicants' independent Claim 29 now requires:

29. A wheel and overlay assembly comprising:
a wheel having an outboard surface defined by
a disk portion;
a rim portion circumscribing said disk
portion; and
means for attaching said rim portion to said
disk portion;
**said rim portion having a truncated
axially extending rim flange terminating in a flange lip
defining a radially outermost edge thereof;**
**said disk portion, rim portion, truncated
rim flange and flange lip defining said outboard surface of said
wheel;**
an overlay having:
an outboard surface juxtaposed said
outboard surface of said wheel;
an inboard surface complementary to and
facing said outboard surface of said wheel;
a web portion and a peripheral flange
portion terminating in a peripheral lip, said peripheral lip having a
radially outermost edge defining a thickness between said inboard
and said outboard surface, **said radially outermost edge of said
peripheral flange lip of said overlay defining an outside
diameter smaller by a predetermined margin than the outside
diameter defined by said radially outermost edge of said flange
lip of said wheel regardless of tolerance variation of said
overlay and said wheel when said overlay is attached to said
wheel;** said inboard surface of said overlay facing said flange lip of
said truncated rim flange of said wheel; and
means for attaching said overlay to said
wheel, said attaching means disposed between said outboard
surface of said wheel and said inboard surface of said overlay, said
means for attaching said overlay to said wheel comprising at least
one permanent adhesive disposed between said outboard surface of
said wheel and said inboard surface of said overlay for permanently
securing said overlay to said wheel;
**whereby said overlay gives a visible
impression that said outboard surface of said overlay is**

actually said outboard surface of said wheel and not a separately attached component of said wheel and overlay assembly, and further whereby tire changing equipment cannot damage said outboard surface of said overlay during tire changes and still further whereby damage to said cladding as a result of adjacent assemblies coming into contact with one another in material handling of said wheel and overlay assembly during normal production and/or transportation of said assembly will be eliminated .

Applicants' independent Claim 53 now requires:

53. A wheel and overlay assembly comprising:
a wheel having an outboard surface defined by
a disk portion;
a rim portion circumscribing said disk portion; and
means for attaching said rim portion to said disk
portion;
said rim portion having a truncated axially
extending rim flange terminating in a flange lip defining a
radially outermost edge thereof;
said disk portion, rim portion, truncated rim
flange and flange lip defining said outboard surface of said
wheel;
an overlay having:
an outboard surface juxtaposed said outboard
surface of said wheel;
an inboard surface complementary to and facing
said outboard surface of said wheel;
a web portion and a peripheral flange portion
terminating in a rim flange having an axially extending
peripheral flange lip, said axially extending peripheral flange
lip being nested with said truncated axially extending rim
flange of said wheel and occupying the removed portion of said
truncated rim flange of said wheel, said axially extending
peripheral flange lip having a radially outermost edge, said
radially outermost edge of said axially extending flange lip of
said rim flange of said overlay defining an outside diameter of
said overlay smaller by a predetermined margin than the
outside diameter defined by said radially outermost edge of
said flange lip of said truncated rim flange of said wheel when
said overlay is attached to said wheel; and

means for attaching said overlay to said wheel, said attaching means disposed between said outboard surface of said wheel and said inboard surface of said overlay, said means for attaching said overlay to said wheel comprising at least one permanent adhesive disposed between said outboard surface of said wheel and said inboard surface of said overlay for permanently securing said overlay to said wheel;

whereby said overlay gives a visible impression that said outboard surface of said overlay is actually said outboard surface of said wheel and not a separately attached component of said wheel and overlay assembly, and further whereby tire changing equipment cannot damage said outboard surface of said overlay during tire changes and still further whereby damage to said cladding as a result of adjacent assemblies coming into contact with one another in material handling of said wheel and overlay assembly during normal production and/or transportation of said assembly will be eliminated.

Beam fails to disclose a wheel having an outboard surface defined by a rim portion with a truncated axially extending rim flange terminating in a flange lip defining a radially outermost edge wherein the disk portion and rim portion, truncated rim flange and flange lip define the outboard surface of the wheel. Beam further fails to disclose an overlay having a web portion and a peripheral flange portion terminating in a peripheral lip wherein the radially outermost edge of the peripheral flange lip of the overlay defines an outer diameter smaller by a predetermined margin than the outside diameter defined by the radially outermost edge of said flange lip of said wheel. Because of this structural arrangement, the overlay gives the visible impression that the outboard surface of the overlay is actually the outboard surface of the wheel and not a separately attached component of the wheel and overlay assembly. Further, with this structural limitation, tire changing equipment cannot damage the outboard surface of the overlay during tire changes and damage to the cladding as a result of adjacent

assemblies coming into contact with one another during material handling of the wheel and overlay assembly in normal production and/or transportation of the assembly will be eliminated. Further, Beam does not have the structure set forth in independent Claim 23 in the form of a rim portion having a truncated axially extending rim flange terminating in a flange lip defining a radially outermost edge, wherein the disk portion, rim portion, truncated rim flange and flange lip define the outboard surface of the wheel. Further, Beam does not have a web portion and peripheral flange portion terminating in a rim flange having an axially extending peripheral flange lip, the axially extending peripheral flange lip being nested with the truncated axially extending rim flange of the wheel and occupying the removed portion of the truncated rim flange of the wheel as clearly set forth in independent Claim 53. Further, independent Claim 53 sets forth the structural relationship of the radially outermost edge of the axially extending flange lip of the rim flange of the overlay defining an outside diameter of the overlay smaller by a predetermined margin than the outside diameter defined by the radially outermost edge of the flange lip of the truncated rim flange of the wheel when the overlay is attached to the wheel. Accordingly, because of this structural interrelationship, the overlay gives the visible impression that the outboard surface of the overlay is actually the outboard surface of the wheel and not a separately attached component of the wheel and the overlay assembly. Further, because of the outermost edge of the overlay being smaller by a predetermined margin than the radially outermost edge of the wheel, damage is avoided to the overlay during tire changes or as a result of adjacent assemblies coming into contact with one another in material handling of the wheel and overlay assembly during normal production and/or transportation of the assembly.

The Examiner considers the rim flange shown in Figure 5 of Beam to be truncated as the axially extension of the flange lip is limited. Applicants' attorney has carefully reviewed every single word of the disclosure of Beam and finds no support whatsoever in the complete specification for this finding by the Examiner. In other words, the specification of the Beam reference is completely silent with respect to the relationship of the outside diameter of the cover as compared to the outside diameter of the wheel to attempt to obtain the benefits as set forth in Applicants' invention. Therefore, for the Examiner to opine that Figure 5 is considered truncated is not acceptable for the simple reason that under the current precedent, it is well established that patent drawings do not define the precise proportions of the elements of the invention and may not be relied on to show particular sizes if the specification is completely silent on this issue. MPEP §2125 (1998).

Therefore, in applying the test for anticipation as set forth in *Lindemann Maschinenfabrick GmbH v. American Hoist and Derrick*, supra, Beam cannot anticipate either independent Claims 29 or 53. Accordingly, withdrawal of the rejection of independent Claims 29 and 53, as well as dependent Claims 32, 33, 41, 56, 57, 65 and 66 which are but further delineations of the structure set forth in the independent claims from which they depend, under 35 U.S.C. §102 is respectfully requested.

In the referenced Office Action, the Examiner rejected Claims 29, 32, 33, 34, 53, 56, 57, 58, 65 and 66 under 35 U.S.C. §102(b) as being anticipated by Chase, U.S. Patent No. 5,597,213. The undersigned attorney respectfully traverses the Examiner's rejections of independent Claims 29 and 53, as well as dependent Claims 32, 33, 34, 56, 57, 58, 65 and 66 in

view of the amendments presented herein and submitted herewith as well as the following argument.

As set forth above, the test for determining if a reference anticipates a claim, for purposes of a rejection under 35 U.S.C. §102 is whether the reference discloses all the elements of the claimed combination, or the mechanical equivalents, functioning in substantially the same way to produce substantially the same results. As most recently noted by the Court of Appeals of the Federal Circuit in *Lindemann Maschinenfabrick GmbH v. American Hoist and Derrick*, 221 USPQ 481, 485 (1984), in evaluating the sufficiency of an anticipation rejection under 35 U.S.C. §102, the Court stated:

“Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim.”

Applicants’ amended independent Claims 29 and 53 as set forth hereinabove, itemizes structural requirements and interrelationships, in bold type, existing between the structural elements claimed and the Chase disclosure in order to obtain illustrated results. Chase, U.S. Patent No. 5,597,213, does not disclose a peripheral lip of a wheel cover having a radially outermost edge located within a predetermined margin of the radially outermost edge of the wheel. Further, Chase does not disclose a truncated axially extending rim flange with an overlying wheel cover which has a radially outermost edge within a predetermined margin of the radially outermost edge of the wheel. Frankly, Chase is completely silent within the specification with respect to the radially outermost edge relationship of the cover as compared to the radially outermost edge of the wheel. Accordingly, it is clear to any person skilled in the art that drawings which accompanying applications are merely illustrative of principles embodied in the

alleged invention claimed therein and do not define precise proportions of elements relied upon for purposes of a 35 U.S.C. §102(a) rejection when the specification is completely silent in this respect. Chase does not disclose an overlay element arranged as in Applicants' independent Claims 29 and 53 that specifically describe a required alignment relationship of the overlay within a predetermined margin of the wheel to ensure that the overlay will not be damaged by tire changing equipment during a change of a tire and still further whereby damage to the cladding as a result of adjacent assemblies coming into contact with one another in the material handling of the wheel during the normal production process and/or transportation of the assembly will be eliminated.

In addition to the Lindemann "identity" requirement, anticipation further requires that a reference be "enabling" to constitute proper prior art. The Supreme Court has held that a reference must contain a full enabling description in order to constitute anticipation. More recently, the Federal Circuit ruled that anticipation requires the applied reference "describe and enable the claimed invention...with sufficient clarity and detail to establish that the subject matter already existed in the prior art and that its existence was recognized by persons of ordinary skill in the field of the invention".

In response to the Examiner's contention with respect to the Beam reference that "the rim flange shown in Figure 5 is considered to be truncated..." as well as that Chase '213 "as shown in Figure 7, the rim has an outer lip 522 which is considered to be truncated and as much as it is actually shorter than some of the other flanges shown in the patent, such as lip 122 shown in Figure 3", it is respectfully suggested that the disclosure referred to (the drawings) lacks enablement with regard to the overlay not extending radially beyond the outside diameter of the

rim flange and therefore does not anticipate Applicants' invention. Again, the specification of Beam, as well as Chase is completely silent regarding such teachings of disclosure, as well as fails to set forth the advantages and/or disadvantages of the relationship of the outermost radially edge of the overlay and the outermost radially edge of the wheel rim and does not make clear that the relationship is essential to the invention. Since both Beam and Chase fail recognize any of the advantages or the disadvantages attributable to this relationship between the outermost radial edge of the overlay and outermost radial edge of the wheel, any results therefrom are unintended and unappreciated and do not constitute anticipation. Further, it is a well known principle that a patent drawing does not define the precise proportions of the elements depicted and thus may not be relied on to show particular distances or sizes when the specification is completely silent in that respect. Therefore, in applying the test for anticipation as set for in Lindemann, neither Beam nor Chase anticipate either independent Claims 29 or 53. Accordingly, withdrawal of the rejection of independent Claims 29 and 53, as well as dependent Claims 32, 33, 34, 41, 56, 57, 58, 65 and 66 which are but further delineations of the invention set forth in the independent claims for which they depend, under 35 U.S.C. §102 is respectfully requested.

In the above referenced Action, the Examiner rejected Claims 30, 31, 35-40, 54, 55, and 59-64 under 35 U.S.C. §103(a) as being unpatentable over the teachings of Beam. Further, the Examiner rejected Claims 30, 31, 35-40, 54, 55, and 59-64 under 35 U.S.C. §103 as being obvious over the teachings of Chase, U.S. Patent No. 5,597,213. The Examiner also rejected Claims 42-46 and 48-52 under 35 U.S.C. §103 as being unpatentable over the teachings of Baumgarten et al. in view of the teachings of Eikhoff et al., U.S. Patent No. 6,200,411. Finally, the Examiner rejected Claims 47 under 35 U.S.C. §103(a) as being unpatentable over the

teachings of Baumgarten et al. in view of the teachings of Eikhoff et al. as applied to Claim 45 above and further in view of the teachings of Chase. Applicants' attorney respectfully traverses each of the 35 U.S.C. §103 rejections set forth herein in view of the claims as amended and for the reason that Applicants' invention is not an obvious improvement over the prior art.

With respect to the rejections under 35 U.S.C. §103, it is noted in MPEP §706 that the standard of patentability to be followed in the examination of a patent application is that which was enunciated by the Supreme Court in *Graham v. John Deere*, 148 USPQ 459 (1966), where the Court stated:

“Under Section 103, the scope and the content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved.”

Accordingly, to establish a prima facie case of obviousness, the Patent Office must; (1) set forth the differences in the claim over the applied references; (2) set forth the proposed modification of the references which would be necessary to arrive at the claimed subject matter; and (3) explain why the proposed modifications would be obvious. To satisfy step (3) above, the Patent Office must identify where the prior art provides a motivating suggestion, inference or implication to make the modifications proposed in step (2) above. *In re Jones*, 21 USPQ2d 1941(Fed. Cir. 1992).

The mere fact that the prior art may be modified by the Examiner does not make the modification obvious unless the prior art suggests the desirability for the modification. *In re Fritch*, 23 USPQ2d 1780 (Fed. Cir. 1992). In the present case, the Examiner has failed to make a

proper prima facie showing of obviousness since the Examiner has failed to show how the prior art suggests the desirability of the proposed modification.

Beam, U.S. Patent No. 5,368,370, is directed the problems associated with the use of ornamental trim rings utilizing a formed sheet metal ring attached to the rim portion only of the wheel. To overcome this problem Beam teaches the use of a composite vehicular wheel assembly having a permanent ornamental surface treatment. The wheel assembly 10 includes an annular rim 12 have two rim flanges 14. A spider 20 is fixed within the rim 12 and attaches to a rotating hub 22. The spider 20 includes a plurality of radial spokes 24. Lug stud holes 32 are formed in the spider 20 and are circumferentially spaces about a central axis of the assembly 10. A stamped sheet metal appliqué 34 conforming to the outer surface curvature of the rim 12 and spider 20 is adhesively attached with an epoxy 42. The appliqué 34 is chrome-plated to simulate a conventional prior art electroplated chrome wheel assembly. The appliqué includes vent openings 40 positioned between the spokes 24 of the spider 20, and apertures 52 aligned over each of the lug stud holes 32 of the spider 20 for passage of the lug studs 31. A separately detachable center cap 29 attaches to the spider 20 and/or the hub 22.

Furthermore, the appliqué 34 includes a plurality of vent openings 40 aligned between the spokes 24 of the spider 20. The vent openings 40 are radially positioned between the inner 38 and outer 36 connecting portions. Preferably, the vent openings 40 correspond precisely with the open portions between the spokes 24, as best illustrated in Figures 1-4. Figure 6 illustrates a cross section of one spoke 24 and is shown with the overlying portion of the appliqué 34. Of particular note is the boundary 54 of the vent openings 40 where the appliqué 34 is curled around the edges of the spokes 24. This construction further rigidifies the appliqué 34, eliminates

the sharp edges to prevent cuts, and also helps seal or protect the adhesive 42 from direct contact with debris and the elements. The curled boundary 54 further helps prevent the appliqué 34 from rotating upon the spider 20 and assists in the alignment of the appliqué 34 over the spider 20 during assembly.

Beam further teaches in Figure 7, an alternate spoke and appliqué vent opening configuration wherein the vent openings, according to Beam may vary from the spoke 24 configuration so that different and unique ornamental with designs can be achieved. Specifically, Beam teaches at column 4, line 66 through line 5 of column 5 “in some cases, the number of vent openings 40 need not be equal to the number of spokes 24. Thus, the rim 12 and spider 20 configurations of Figure 7 can be used with many different vent opening 40 options of the appliqué. This practice allows the same rim 12 and spider 20 structure to be used for many different vehicles”.

Beyond these embodiments, Beam discloses absolutely no further teachings with respect to the relationship of the radially outermost edge diameter of the cover being smaller by a predetermined margin than the radially outermost edge diameter of the wheel to avoid damage to the bright finish of the cladding. Further, Beam is completely silent as to the rim flange being truncated.

The complete specification of Beam is silent regarding the teachings of the relationship between the edge of the cladding and the edge of the rim flange of the wheel. Therefore, drawings alone may not be relied on to show particular distances or sizes when the specification is completely silent in that respect.

Chase, U.S. Patent No. 5,597,213, is directed to the problems associated with

Beam teachings, in that, Beam's application resulted in a galvanic action occurring between the cladding and the wheel that visibly was unacceptable in the market place. Also, Beam's full surface uniform layer of curable adhesive was cost prohibitive and wasteful since Chase clearly discovered that there was no need for a full surface uniform layer of adhesive to hold the overlay to the wheel.

Accordingly, Chase teaches a selective application of an adhesive as well as the use of an intermediate positive fixing element for temporarily positioning and securing an overlay to a wheel during an interval in which is selectively positioned and applied adhesive required to permanently adhere the overlay to the wheel as it was allowed to cure. Chase further discloses a temporary hot melt adhesive can be combined with the use of a high strength slow curing adhesive both of which are selectively placed between the overlay and the wheel to alleviate concerns of squeaks and rattles as well as to improve the overall manufacturability performance and consumer perceived quality of the resulting wheel assembly. The hot melt adhesive is capable of creating a bond almost instantly, but is ill suited for securing the overlay to the outboard surface of the wheel over its service life, that is, once the wheel is installed and in use on an automobile. Therefore, the hot melt adhesive is characterized as being suitable only for temporary securing the overlay to the outboard surface of the wheel during the assembly of the overlay and wheel and while high strength, slow curing adhesive is curing. Advantageously, such use comes during a critical period when the overlay is susceptible to movement relative to the wheel. Accordingly, while the hot melt adhesive is not suitable for permanently securing the overlay to the wheel, the hot melt adhesive is readily capable of positively maintaining the position of the overlay on the outboard surface of the wheel during the period in which the high

strength, slow curing adhesive is curing.

Chase further discloses selective deposition of the adhesive bead in parallel but separated lines of adhesive rather than a solid layer to create voids so as to reduce the amount of curing time of the adhesive and thereby reduce manufacturing time and costs. As such, air is circulated between the lines of adhesive captured between the overlay and the wheel to assist in curing the adhesive. Further curing for certain adhesives is significantly reduced by exposure to moisture laden air which is circulated as stated. In such cases, high humidity air is introduced into the assembly process and the technique of selected application of adhesive can be utilized to establish voids between lines of adhesive that serve to allow air to circulate enhancing cure times and reducing overall costs of the manufacturing process.

Baumgarten et al., U.S. Patent No. 6,068,350, is directed to the high costs associated with stylized one piece cast wheels and the process of finishing the outboard surfaces of such wheels either by chrome plating or painting. Baumgarten et al. teach a light weight wheel assembly which includes a stylized wheel disk mounted upon a universal one piece cast wheel and the process for manufacturing the wheel assembly. The wheel is lightened by forming pockets into the sidewall to reduce the wheel weight. In the preferred embodiment, the universal wheel is cast in one piece and includes a stylized outer wheel disk attached to the outboard end of the wheel rim. The outer wheel disk includes a flange formed on the circumference thereof which extends axially therefrom so as retain balance weights. In the preferred embodiment, the outer wheel disk is die cast and completely covers the outboard end of the universal wheel. The outer wheel disk is permanently attached to the outboard end of the universal wheel with an adhesive or alternatively can be welded to the universal wheel. The cast wheel disk includes a

decorative layer of chrome plating which when plated extends over the balance weight retention flange.

Eikhoff, U.S. Patent No. 6,200,411, is directed to the high costs associated with chrome plating standard wheel rims which is cost prohibitive.

Eikhoff teaches a method for enhancing a standard vehicle wheel rim by providing an exterior facing particularly one with a decorative bright face. The unit is provided in the form of a kit for an automobile application or a motorcycle application wherein the exterior facing conforms substantially over its entire structure with the surface contour of the base material of the wheel to which it is applied and the exterior facing has a generally uniform cross-section thickness throughout. The exterior facing is applied to the wheel using an adhesive material. Figures 5-11 illustrate an exterior facing applied to a passenger wheel rim while Figures 2-4 illustrate an exterior facing applied to a motorcycle rim. Note that, with the exception of Figure 9, the exterior facing extends beyond the rim flange of the wheel or overlaps the rim flange of the wheel such that if such wheel was put on tire changing equipment, it would become damaged along the outer peripheral edge of the cladding during the course of changing a tire. Further, these rims would also become damaged if they were allowed to bump against each other on a production line or a gravity feed conveyor. Figure 9, however, illustrates an exterior facing 56 provided with a radially outermost edge 78 which extends to a base portion 80 of the flange 76. Exterior facing 56 has a configuration generally conforming with a shape of the face 82 of the rim 54. Other than this limited disclosure, Eikhoff et al. does not disclose any specific reason why the exterior facing extends to a base portion 80 of the rim flange 76.

Applicants' invention is directed to the lack of a cost effective method of achieving an individual aesthetic appearance of a cladded vehicle wheel without wrapping the edge of the cladding or cover around the flange lip of the rim flange of the wheel. The wrap around cladding results in excessive damage to the wrap around edges of the cladding during production of the assembly, as well as when a tire is changed, the tire mounting/demounting equipment clamps on the outer diameter of the assembly and will damage the decorative support surface of the cladding.

To overcome the problems associated with prior art wheel and cover assemblies, Applicants teach a device wherein the overlay is brought radially outward to ensure the entire outboard face of the wheel is covered, including the flange lip of the rim flange without the costly technique of wrapping the overlay around the flange lip of the rim flange at an economical cost without jeopardizing the structural integrity of the wheel assembly, as well as the aesthetic aspects of the cladding cover, that is, the cladding cover and wheel assembly is still perceived as a chrome plated wheel.

The overlay as taught by Applicants' invention is permanently secured to a wheel such that under max/min tolerance conditions of the overlay and/or wheel the overlay is brought radially outward to cover nearly the entire outboard face of the wheel, including the flange lip of the rim flange of the wheel, without extending radially beyond the outer diameter of the wheel. The present invention includes a wheel having an outboard surface defined by a disk, and a rim circumscribed about the disk. The rim's radial outer periphery (or the disk's outer periphery in the case of a full face wheel) is defined by a rim flange having a flange lip at the axially outermost edge which may be truncated. The overlay has an outboard surface with a web portion, and an

integral peripheral flange or rim flange portion circumscribed about the web portion. Further, the peripheral flange or rim flange portion of the overlay also terminates in a flange lip at the radially outermost edge which may be truncated. The peripheral flange portion of the overlay has an inboard surface that is near to the axially outermost edge or flange lip of the rim flange of the wheel, while the radially outermost edge or flange lip of the peripheral flange portion of the overlay is circumferentially aligned within a predetermined margin or tolerance variation of the radially outer periphery of the rim flange of the wheel, such that the peripheral flange portion of the overlay covers the flange lip of the rim flange of the wheel without wrapping over the edge of the wheel or going beyond the peripheral outermost edge of the wheel. Accordingly, the aesthetic integrity is preserved as the application discloses, preferably this margin or radial offset is so slight as discussed in detail in the specification that it is not readily noticeable to a consumer looking at the wheel assembly installed on the vehicle. Therefore, the consumer will get the visual impression that the entire decorative overlay is actually the wheel. Further, this circumferential margin prevents damage to the edges of the chrome plated cover during normal production or as a result of tire changing equipment should the consumer have a flat tire. This relationship gives a visible impression to the observer of the vehicle or wheel alone that the entire outboard surface of the overlay is actually the entire outboard surface of the wheel. This impression is accomplished without wrapping the overlay's peripheral flange portion around the flange lip of the rim flange, as with some previous prior art. This technique also results in giving an impression to the observer that the wheel is larger than what it should be due to the added thickness of the metal wrapped around the rim flange.

Disclosed in the current application, the first embodiment of the apparatus according to the present invention is depicted in Figures 1 through 4. Figure 5 illustrates a second embodiment. Figure 6 illustrates a third embodiment. Figure 7 illustrates a fourth embodiment. Figure 8 illustrates a fifth embodiment. Figure 8A illustrates a sixth embodiment. Figure 9 illustrates a seventh embodiment. Figures 10A and 10B illustrate a generic depiction of a margin that is relevant and applicable to all of the embodiments of the present invention.

Independent Claims 29 and 53 are exemplified in all Figures 1 through 10B. A concise explanation of the invention defined in the claims follows. For clarity and brevity, the following description will be made with reference to the first embodiment, including reference to Figures 1-4 and the reference characters therein. Accordingly, it should be understood that the following summaries apply to the rest of the embodiments of Applicants' invention.

Specifically, Claim 29 recites a wheel and overlay assembly (10) comprising a wheel (30) and an overlay (50). The wheel includes an outboard surface (31), a disk portion (33) and a rim portion (36) circumscribing the disk portion. The rim portion includes a rim flange (37) that circumscribes the rim portion and that terminates in a flange lip (38) that includes a radially outermost edge (38a). The overlay includes an outboard surface (52) and is attached to the outboard surface of the wheel. The overlay further includes a web portion (53) and a peripheral flange (57) circumscribing the web portion. The peripheral flange terminates in a rim flange or peripheral lip (58) that includes a radially outermost edge (58a) that is aligned within a predetermined margin of the radially outermost edge of the flange lip of the wheel. Accordingly, as clearly disclosed in the specification, the peripheral lip of the overlay cannot extend radially beyond the outermost edge of the flange lip of the wheel, regardless of tolerance variations of the

overlay or the wheel, thereby giving the visible impression that the outboard surface of the overlay is actually the outboard surface of the wheel and not a separately attached component to the wheel assembly.

Moreover, Applicants' independent Claim 53 recites a wheel and overlay assembly (10) comprising a wheel (30) and an overlay (50). The wheel includes an outboard surface (31), a disk portion (33) and a rim portion (36) circumscribing the disk portion. The rim portion includes a truncated rim flange (37) circumscribing the rim portion and the truncated rim flange terminates in a flange lip (38) that includes a radially outermost edge (38a) that defines an outer diameter of the wheel. The flange lip further includes an outboard surface portion that is an extension of the wheel's outboard surface (31). The overlay includes an outboard surface (52) and is attached to the outboard surface of the wheel. The overlay further includes a web portion (53) and a peripheral flange (57) that circumscribes the web portion and that terminates in a peripheral lip (58). The peripheral lip includes an inboard surface portion (56) that locates net against the outboard surface portion of the flange lip. The peripheral lip includes a radially outermost edge (58a) that defines a diameter. The diameter of the overlay is within a predetermined margin less than the outer diameter of the wheel. Accordingly, as clearly discussed in the specification the peripheral lip of the overlay cannot extend radially beyond the outermost edge of the flange lip of the wheel, regardless of any tolerance variations of the overlay or the wheel, thereby giving the visible impression that the outboard surface of the overlay is actually the outboard surface of the wheel and not a separately attached component of the wheel assembly. Also, since the outermost radial edge diameter of the decorative cladding is at all times smaller than the radial edge diameter of the wheel, the outermost edge of the cladding

cannot be damaged as a result of material handling during the production process by the wheel assemblies being allowed to bump into each other on a gravity feed conveyor or after being mounted on the vehicle tire changing equipment that clamps on the outermost radial edge of the wheel cannot damage the edge of the cladding since it is smaller in diameter by a predetermined margin as clearly disclosed in the application.

The differences between Applicants' invention and the teachings of the prior art references cited by the Examiner are quite clear. For example, neither the Beam, Chase, Baumgarten et al., or Eikhoff references contain any disclosure whatsoever with respect to a truncated rim flange or an outermost peripheral edge of the cladding being smaller within a predetermined margin than the outermost edge of the rim of the wheel. Further, with exception of Beam, none of these references recognize the problems as set forth with the prior art conceived by the inventors. Beam does recognize that tire mounting/demounting machinery must be able to operate without damaging the ornamental surface treatment of the cladding. However, Beam fails to recognize the problems associated in production of the cladded wheel assembly, that is, material handling equipment resulting in handling of the assembly causing the wheels to bump into each other and potentially create damage to the cladding if the cladding is not kept away from the outer edge of the wheel a predetermined margin. Beam's disclosure is completely silent with regard to this claimed structure. Accordingly, it cannot teach any solution relative to such problem,

As stated above, each of the disclosures of Beam, Chase, Baumgarten et al., and Eikhoff are completely silent as to the relationship of the radial edge of the cladding be truncated or the relationship of the radial edge of the cladding being within a predetermined margin of the

wheels underlying structural features. Therefore, there is absolutely no disclosure whatsoever or teachings whatsoever in any of the references that in order to avoid damage to the cladding during production, as well as during the change of a tire, the diameter of the cladding must be kept smaller by a predetermined margin than the diameter of the wheel so that the cladding cannot be damaged during these various activities.

In each of the rejections under 35 U.S.C. §103, the Examiner is relying on observations made under 35 U.S.C. §103 from each of the figures of the various references, for the 102 rejection that is, the figures disclose a truncated rim flange and therefore have a diameter of the overlay which is less than the diameter of the wheel rim. Each of these observations are made from drawings since none of the specifications of these references have any disclosure whatsoever regarding these observations and the Examiner presumes that such teachings are present in the disclosure. Frankly Applicants have clearly studied each of the disclosures of the four references and finds not a single word of disclosure in any of these references or teachings with respect to a truncated rim flange or with respect to the outer diameter of the cladding being smaller by a predetermined margin from the outer diameter of the wheel in order to avoid damage to the cladding for the various processes that the cladding must experience through production and during service life of the vehicle.

The Examiner alleges that the tolerance and margins between the lip of the overlay and the flange lip taught by Applicants are obvious design expedients that, combined with either the teachings of Beam, Chase, Baumgarten et al. or Eikhoff, either in combination or singularly should obviate Applicants' claims. The mechanical design expedient rejection is fatally flawed because it fails to take into consideration the particular problem that was recognized by the

Applicants and solved by the claimed construction of the invention. With the exception of Beam, neither Chase, Eikhoff or Baumgarten et al. recognize the problems solved by the Applicants' invention. Beam merely recognizes that in the changing of a tire, the equipment performing this change must be able to operate without damaging the ornamental face or surface treatment. Beam fails to set forth any teachings on how to solve this problem. Accordingly, even Beam fails to recognize the problems associated with the various production activities in the assembly and processing of the assembly for a cladded wheel. Certainly, one skilled in the art would have no basis whatsoever for combining the teachings of any of these references in the manner suggested by the Examiner. Specifically, none of the references recognize all of the problems associated with the wheels assembly and hazards of having a wheel cover radially extending beyond the edge of the wheel. Failure to recognize this problem cannot therefore motivate a person skilled in the art to fabricate the cladding a predetermined margin smaller in diameter than the outer diameter of the wheel. Absent recognition of the problem faced by the Applicants, the prior art cannot possibly suggest singularly or in combination the solution as novel as Applicants' invention. Furthermore, as none the Examiner's references recognize all of the problems associated with the wheel cover radially extending beyond the rim, the Patent Office cannot possibly identify where the prior art provides a motivating suggestion as required by in element 3 of *In re Jones* analysis cited hereinabove, to make the modifications suggested by the Examiner.

Since the disclosures of the Beam, Chase, Baumgarten et al. and Eikhoff references are completely silent with respect to the rim flange being truncated and the fact that the radially outermost edge diameter of the cladding is structurally made smaller than the radially outermost edge diameter of the wheel, as claimed, so as to never extend beyond the radial edge of

the wheel rim as a result of tolerance variation, it is impossible for these references to teach a solution to problems set forth in Applicants' application with respect to the handling of the cover during production processing. Further, since Eikhoff's application clearly teaches that the cover extends beyond the edge of the wheel and wraps around the edge of the wheel, this is completely contrary to the Applicants' claimed invention. With exception of Figure 9, which again, completely lacks any disclosure whatsoever why the cover is maintained significantly smaller than the outer diameter of the wheel, the remainder of the embodiments shown in Eikhoff teach completely contrary to Applicants' invention.

Thus, it is only through Applicants' teachings and disclosure that one of ordinary skill in the art would appreciate the need for such claimed structural arrangement between the associated edges of the overlay or the cladding and the wheel diameter to provide unique esthetic configuration to a vehicle wheel. In view of this, a person of ordinary skill in the art would not seek to use teachings of the references cited by the Examiner to produce the results that Applicants' invention as claimed teaches.

Even if, as the Examiner suggests, the teachings of either Chase, Beam, Baumgarten et al. or Eikhoff were singularly or in combination used to attempt to obviate Applicants' invention, it is clear from these teachings that the suggested combination could not result in Applicants' invention and would in fact require extensive additional disclosure, as well as structure in an attempt to acquire similar results. Specifically, none of the references disclose or teach the alignment of the outside diameter of the wheel cover relative to the outside diameter of the rim of the wheel so that the cover cannot extend beyond the rim of the wheel and is maintained a predetermined margin from the outermost edge of the wheel. According, with such

structure, manufacturing and assembly variations cannot result in a wheel cover assembly in which the cover is damaged as a result of material handling or after assembly to the vehicle, where the cover could be damaged by tire mounting equipment.

The undersigned attorney respectfully submits that independent Claims 29 and 53 are clearly allowable over the disclosure and any of the teachings of Beam, Chase, Baumgarten et al. or Eikhoff taken by themselves or in combination. Further, under principle of dependency, Beam does not obviate Claims 30, 31, 35-40, 54, 55, and 59-64 nor does Chase obviate Claims 30, 31, 35-40, 54, 55 and 59-64. Further, Claims 42-46, as well as 48-52 are not obviated by Baumgarten et al. in view of the teachings of Eikhoff et al. Accordingly, Applicants' invention is indeed an unobvious improvement over the prior art of record and not an obvious modification of any of the references cited by the Examiner. For the reasons set forth herein, withdrawal of the rejection of the claims under 35 U.S.C §103(a) is respectfully requested.

The Commissioner is hereby authorized to charge any deficiency in fee associated with this amendment to the undersigned's Deposit Account No. 22-0212. A duplicate of this page is included.

If the Examiner has any questions with respect to any matter now of record, Applicants' attorney may be reached at (586) 739-7445.

Respectfully submitted,

VANOPHEM & VANOPHEM, P.C.

A handwritten signature in black ink, appearing to read 'Remy J. VanOphem', is written over a horizontal line.

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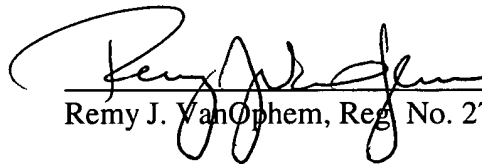


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